

of hypothesized digit strings arranged in ranked order based on a likelihood of matching the spoken digit string;

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- (c) [using a given knowledge based recognition strategy,] determining whether individual hypothesized strings of said list satisfy a given constraint [beginning with the string having the greatest likelihood of matching said spoken string], using a given knowledge based recognition strategy; and
- (d) selecting the first string in the list satisfying the constraint as the recognized string.
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IN THE DRAWING

As required by the Examiner, Applicants submit herewith proposed changes to the Drawing. The changes are in the form of a red ink sketch. Upon approval by the Examiner and upon issuance of a Notice of Allowance, Applicants will make these changes formal.

REMARKS

The present amendment replies to the Office Action, dated June 22, 2000 in which the Examiner rejected: claims 1, 13, 14 and 25 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,882,757 issued November 21, 1989 to W.M Fisher et al. (hereinafter "Fisher"); claims 1-3, 13, 20-21 and 25 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,606,644 issued April 7, 1998 to W.Chou et al. (hereinafter "Chou"); claims 1, 13, 25 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,241,619 issued August 31, 1993 to R.M. Schwartz et al.

(hereinafter "Schwartz") and claims 15-19 under 35 U.S.C. § 103(a) as being unpatentable over Fisher, alternatively over Chou, or alternatively over Schwartz; claims 5-7, 22-24 under 35 U.S.C. § 103(a) as being unpatentable over Fisher, alternatively over Chou, or alternatively over Schwartz in view of U.S. Patent No. 5,222,187 to Doddington et al. (hereinafter "Doddington"); claim 8 under 35 U.S.C. § 103(a) as being unpatentable over Fisher, alternatively over Chou, or alternatively over Schwartz in view of U.S. Patent No. 4,866,778 to Baker (hereinafter "Baker"). Claims 1-25 are pending. Claim 1 has been amended to more particularly point out the invention. The claims have not been narrowed.

The Examiner objected to the Drawings under 37 CFR 1.83(a). In view of the proposed changes to the Drawing, it is requested that the objection be withdrawn.

Applicant appreciates the Examiner indication that claims 9-12 would be allowable if rewritten to include all of the limitations of the base claim and any intervening claims. However, applicants have refrained from amending these claims to include all of the limitations of the base claim and any intervening claims, and believe they are allowable for reasons listed below.

Applicant respectfully traverses these rejections and submit that the pending claims, as amended, are patentable for at least the following reasons.

The structure recited in Claim 1, for example, provides significant advantages in speech recognition applications. In prior art speech recognition techniques, a hypothesized digit string is generated from a spoken digit string, see specification, page 8,

lines 2-6. This arrangement has several shortcomings as discussed in the Background of the specification. In contrast, the invention, in addition to generating a list of hypothesized digit strings from a spoken digit string, determines whether the individual hypothesized strings of said list satisfy a given constraint, using a given knowledge based recognition strategy, see page 8, lines 6-14, which allows for superior operation (see page 3, lines 1-11, of the specification).

Applicant has found nothing in Fisher, Chou or Schwartz that shows, teaches or suggests , determining whether the individual hypothesized strings of said list satisfy a given constraint, using a given knowledge based recognition strategy.

Although, Chou describes using the hypothesis speech signal as an input to a verification processor, it is not for speech recognition. This simply provides a speaker verification test and does not determine whether a hypothesized string satisfies a given constraint for recognition.

It is well settled that a reference that does not teach, show or suggest all of the features of a claimed invention cannot anticipate that invention. Since Fisher, Chou or Schwartz does not teach, show or suggest all of the features of independent claim 1, as recited above, applicant respectfully submits that this claim is allowable over Fisher, Chou or Schwartz.

Next, as indicated by the Examiner, Fisher, Chou or Schwartz do not teach that "if none of the hypothesized strings satisfy said constraint, using a supplemental matching technique to select the hypothesized digit string that most closely satisfies the

constraint", as provided in claim 8. Moreover, nothing has been found in Fisher, Chou or Schwartz that recognizes or shows the advantages or the desirability of the limitations recited in dependent claim 8.

The Examiner asserts that Baker teaches a speech recognition system, which can perform multiple recognition passes on each word. Therefore, it would have been obvious for one skilled in the art to use a supplemental matching technique with any of the above apparatuses.

Baker, as read by the applicants, relates to an interactive speech recognition apparatus, which can perform multiple recognition passes on each word, see Abstract. Nothing in Baker has been found that shows, describes or teaches using a supplemental matching technique, if none of the hypothesized strings satisfy the constraint, as specifically recited in claim 8.

Further, the Court of Appeals for the Federal Circuit has stated that:

[i]f identification of each claimed element in the prior art were sufficient to negate patentability, very few patents would ever issue. Furthermore, rejecting patents solely by finding prior art corollaries for the claimed elements would permit an examiner to use the claimed invention itself as a blueprint for piecing together elements in the prior art to defeat the patentability of the claimed invention. Such an approach would be 'an illogical and inappropriate process by which to determine patentability.' (citations omitted) ... The examiner must show reasons that the skilled artisan, confronted with **the same problems** as the inventor and **with no knowledge** of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed.

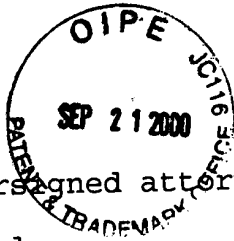
In Re Denis Rouffet, 47 USPQ.2d 1453, 1457-58 (Fed. Cir. 1998)
(emphasis added).

It is not seen how the multiple recognition passes on each word in Baker provides the motivation to combine as asserted in the Office Action. Accordingly, Applicant respectfully submits that there would have been no motivation for one of ordinary skill to combine the teachings as suggested in the Office Action.

Accordingly, at least for these reasons, amended independent claim 1 and claim 8 are believed to be patentable over the cited art.

The other claims in this application are dependent from one or the other of the independent claims discussed above and are, therefore, believed patentable for at least the same reasons.

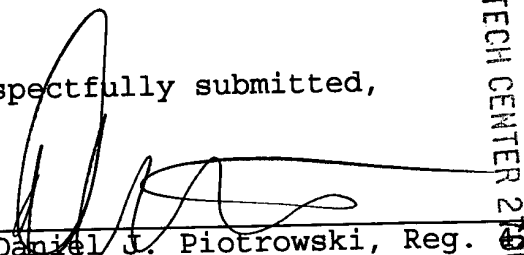
The applicants submit that the claims, as they now stand, fully satisfy the requirements of 35 U.S.C. 102 and 103. In view of the foregoing amendments and remarks, favorable reconsideration and early passage to issue of the present application are respectfully solicited.



Applicants' undersigned attorney may be reached by telephone at the number given below.

Respectfully submitted,

By


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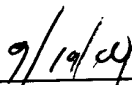
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FIG. 1

